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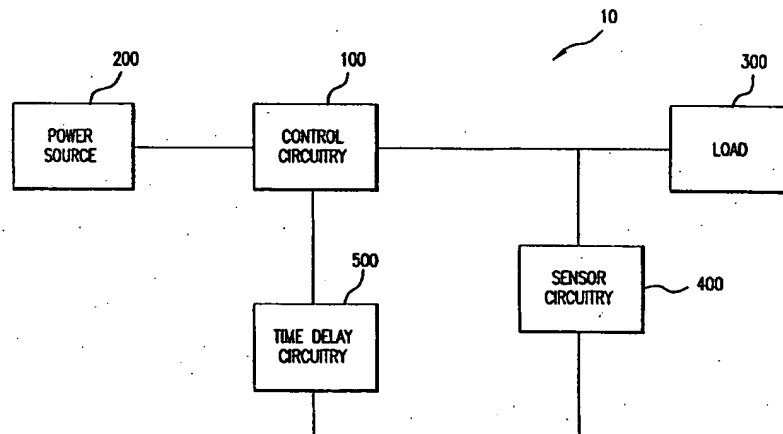
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(54) Title: **METHOD AND APPARATUS FOR DETECTING ELECTRICAL FAULTS AND ISOLATING POWER SOURCE FROM THE ELECTRICAL FAULTS**



(57) Abstract: The present invention is a method and apparatus for protecting a power supply (200) from electrical faults. The present invention operates substantially independently of the current drawn by the load (300). In addition, the present invention includes a time delay circuitry (500) for preventing false detection of ground faults when the power source is connecting to the load. In a preferred embodiment, the apparatus (20) of the present invention includes a control circuitry (100) for connecting the power supply (200) to the load (300). The apparatus (20) also preferably includes a sensor circuitry (600) for detecting electrical faults, including ground, transient, and arc faults, and triggering the control circuitry (100) to disconnect the power source from the electrical faults when electrical faults are detected. Thus, the present invention can protect wiring and load connections from improper operation and fire hazards that may be caused by electrical faults. Finally, the apparatus preferably includes a fault protection condition indicator (514) to indicate whether the circuit breaker circuitry is working properly.

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